

# Notice of Allowability

Application No.

10/671,002

Examiner

Charles A. Marmor, II

Applicant(s)

EARTHMAN ET AL.

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 13 June 2005 and the telephonic interview of 25 August 2005.
2. ☒ The allowed claim(s) is/are 1-26 and 28-37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 06132005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 08252005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
Charles A. Marmor, II  
Primary Examiner  
Art Unit 3736

### EXAMINER'S AMENDMENT

1. This Office Action is responsive to the amendment filed June 13, 2005. The Examiner acknowledges the amendment to claims 23, 28 and 31, as well as the cancellation of claim 27. Claims 1-26 and 28-37 are pending.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kyle F. Schlueter on August 25, 2005.

3. The application has been amended as follows:
- a. At claim 1, line 9, -- a shape of -- has been inserted following "evaluating".
  - b. At claim 2, line 10, -- a shape of -- has been inserted following "evaluating".
  - c. At claim 3, line 9, -- a shape of -- has been inserted following "evaluating".
  - d. At claim 4, line 9, -- a shape of -- has been inserted following "evaluating".
  - e. At claim 11, line 5, -- a shape of -- has been inserted following "evaluating".
  - f. At claim 31, line 7, -- a shape of -- has been inserted following "evaluating".

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4. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-10, no prior art of record teach or fairly suggest a method for measuring the damping capacity of a structure where energy reflected from a structure as a result of tapping on the structure is measured for a time interval; a time-energy profile based on the energy reflected from the structure is created; and a shape of the time-energy profile is evaluated to determine the damping capacity of the structure.

Regarding claims 11-22, no prior art of record teach or fairly suggest a method for determining structural characteristics of an object where energy reflected from the object as a result of tapping on the object is measured for a time interval; a time-energy profile based on the energy reflected from the object is created; and a shape of the time-energy profile is evaluated to determine the structural characteristics of the object.

Regarding claims 23-26 and 28-30, no prior art of record teach or fairly suggest a system for measuring the damping capacity of a structure where the system includes a test probe having an impact rod; an accelerometer; a data analyzer programmed to evaluate a shape of a reflected energy pulse detected by the accelerometer; and a computer that generates and displays a time-energy profile of the reflected energy detected by the accelerometer.

Regarding claims 31-37, no prior art of record teach or fairly suggest a method for determining the stability of a structure in a foundation where energy reflected from a structure as a result of tapping on the structure is measured; a time-energy profile based on the energy reflected from the structure is created; and a shape of the time-energy profile is evaluated to determine the stability of the structure in the foundation.

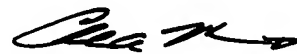
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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Marmor, II whose telephone number is (571) 272-4730. The examiner can normally be reached on M-TH (7:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles A. Marmor, II  
Primary Examiner  
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cam  
August 25, 2005